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THE HINDU

A new approach to rice cultivation



Farmers use friendly insects to boost profit

A small group of farmers in Kuruvai village, near Vadakkencherry, in Kerala's Palakkad district has demonstrated that rice can be cultivated without chemical pesticides and see the yield and profit rise substantially.

“Seeing is believing”, says K. V. Usha, Director, Agricultural Technology Management Agency (ATMA), Department of Agriculture, about the Kuruvai experiment, which involved nearly a hundred families with holdings ranging between 0.4 and 1.5 acres.

They cultivated paddy as their survival crop for long, using traditional knowledge. But cultivation often failed. Some were forced to switch to cash crops and the others to tapioca and banana, which saw acreage under paddy shrink from 33 hectares to 18 hectares in a decade.

A spell of hope came as paddy procurement price was raised to Rs. 19 a kg by Kerala government. But labour cost rose. Pest attacks forced farmers to use heavy doses of chemical pesticides, which led to pest resurgence, a condition in which more and more pesticides are used with decreasing effect.

But during the second crop season (Mundakan), starting October 2015, the farmers, under the guidance of ATMA, adopted pest surveillance and agro-ecology-based plant health management, a concept being promoted now by the National Institute of Plant Health Management, Hyderabad.

Decisions on crop management were taken after weekly evaluations of the presence of pests and defenders, health of plants, soil condition and climatic factors. The farmers, on weekly field visits, meticulously recorded everything from the weather condition to presence of live rodent burrows in the fields.

The average yield rose to 5,500 kgs per hectare, an increase of 30 per cent over the previous level of 4,250 kgs. The farmers spent Rs. 47,785 per hectare from which the yields were 5,500 kgs of paddy and 3,000 kgs of straw. They earned a profit of Rs. 74,715 per hectare. Besides, Department of Agriculture pays a subsidy of Rs. 11,500 per ha.

Added to the profits is the fact that the new pest management method helped avoid four to five rounds of pesticide sprays, which cost them between Rs 4,000 to 5,000 per hectare.

The farmers also overcame perennial shortage and high cost of labour by using a mechanised planter and harvester operated by a farm workforce called the “labour army” or *thozhil sena*.

The farmers, convinced about the effectiveness of pest surveillance and agro-ecology-based plant health management, have deployed the same method for the first crop season this year. The population of friendly insects is so high that there has been no incidence of pest outbreak so far, said an official associated with the programme on Saturday.

The farmers applied the same methodology to cultivation of vegetables and it was found that friendly insects and bio-controls were enough to protect the plants. They have spun their success with pesticide-free cultivation to a substantial business by opening a shop in Vadakkencherry, where produces from Kuruvai fields sold using the tag “safe-to-eat”.

The farmers owe their success to the initiative by the Krishi Bhavan, Vadakkencherry, under Department of Agriculture, which adopted the rice

paddy collective during 2013-14 for mechanisation and reduction of pesticide use under National Food Security Mission.

During 2014-15, ATMA was roped in for a Farmer Field School for the second crop season 2015.

Dr. C. K. Peethambaran, former director of Research, Kerala Agricultural University, specialised in surveillance-based plant disease management, says that presence of friendly insects are overlooked in conventional cultivation. The Kuruvai experiment succeeded because friendly insects were used to fight pests, he said.

Normally, pest attacks are countered with chemical pesticides, which first kill the friendly insects. It was noticed that the pest:defender ratio was always at an advantageous level throughout the first 45 days after transplanting, recalled an officer associated with the programme.

Kuruvai farmers learnt the skill of reading the pest:defender ratio and realised that there was no need to apply pesticides if the defenders were enough to contain the pests. The farmers took a collective decision not to use chemical pesticides.

Pheromone traps and inundative release of egg parasitoides were used to fight yellow stem borers. Trichogramma chilonis was used against leaf folders. Flame torches placed on bunds towards the dusks during the cultivation period helped fight rice bugs. Spraying of fish amino acid from sardine and jaggery distracted rice bugs. As a result pests never came to the economic injury level, said Ms. Usha.

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Make way for the urban farmer

Five youngsters from the city are changing the concept of traditional farming



Going green
The Urban Farmers at their rooftop cultivation at LIBA
Photo: K.V. Srinivasan

In 2013, five young men who graduated from Loyola College with management degrees and placements, parted ways to get on with their lives. Little did they know that two years down the line, they would reunite for a venture that would change the city and the country.

The five men, Kern Agrawal, Kenneth Lowe, Karan Maheshwary, Ashwin Kurisinkal and Mathews Cherickal, collectively known as The Urban Farmers, came up with the idea of farming within the city as a business plan for their course. While researching, they felt that two things were terribly wrong in existing farms and agricultural areas. First, the amount of chemicals used was alarming. Second, of the total land they owned, farmers used only half for cultivation, and sold the rest of it to real estate dealers.

On realising this, the team decided to take up farming with the objective of promoting it within the city and encouraging people to use only the freshest produce in their daily lives. “There is no place in Chennai where farming is done in a big way. Why can’t the city grow its own greens?” asks Kern, the driving force behind the idea. Despite many doubts, they were supported by Fr. Casimir Raj, president of LIBA, and their professor, Dr. K.V. Rajendran, to carry on with the project.

They started on the rooftop of the LIBA building, with a 5,000 sq.ft. space, and with the knowledge of a fairly new method of agriculture known as biodynamic

farming, where only natural compost is used, thereby keeping the produce completely organic. They used dry leaves collected from the college campus to create vermicompost. In this, they were aided by Fr. Ignacimuthu of the entomology department. An added benefit of biodynamic farming, they realised, is that the base strength of the plant is high, which, in turn, negates the need to use chemicals and pesticides.

They harvest a wide variety of vegetables such as tomatoes, okra, herbs, chillies and more. While it was initially distributed among the college staff, as they got the hang of the operation, they began supplying to a nearby housing complex. The feedback they received was beyond what they expected, as people were impressed with the freshness of vegetables. Through word-of-mouth, they began to expand.

The Urban Farmers, now, have over 20 farms around the city, including Adyar and Nungambakkam, which are traditionally residential areas. They are also in talks with corporate companies to establish a Food Park, to encourage them to cultivate and supply to their employees within the organisation.

Though they do not retail anywhere yet, they have taken part in exhibitions and farmers' markets. At a recent farmers' market in the city, they had customisable kits for setting up a farm on both rooftops and pieces of land. The kit contains soil, manure, a particular choice of seeds, resources required for irrigation and protection for rooftops. From start to finish, members of the team or trainees help set up the farm, and will pay a weekly visit during the first month to follow up with the growth of produce. For lands larger than 2,000 sq.ft., they offer additional support to clean up the area and make the land suitable for planting.

As in the case of many other trends, urban farming is a phenomenon that is slowly gaining pace in India. "As a team, we are really close, and we have the advantage of age on our side. What we have in mind right now is a dream to have a green city, a complete set of organic urban terrace farms in Chennai and the world," says Mathews.

The Urban Farmers, now, have over 20 farms around the city, including Adyar and Nungambakkam

India plans to barter surplus sugar for pulses from abroad

Ministries of External Affairs and Commerce working on proposal



Union Minister Nirmala Sitharaman with Congress leader Jairam Ramesh at a function in Chennai on Sunday. Agricultural scientist M. S. Swaminathan is at left.— Photo: B. Jothi Ramalingam

The Centre is planning to barter surplus sugar in the country for pulses that are being imported at high prices and the Ministries of External Affairs and Commerce and Industry are working together on the proposal, Union Minister of State for Commerce and Industry, Nirmala Sitharaman said on Sunday.

Speaking at an ‘International conference on science, technology and public policy to achieve zero hunger challenge’ organised by the M.S. Swaminathan Research Foundation, she said India was now importing pulses from neighbouring countries and even from countries as far as Canada.

Discussions

“The quantum of sugar annually getting accumulated in the last four years has been quite substantial. Through the Ministry of External Affairs, we are trying to talk to countries from which we import pulses — some African countries, Myanmar and other countries where there is a possibility [of a barter],” Ms. Sitharaman said.

Union Minister for Urban Development Venkaiah Naidu said the government was looking into a proposal on agriculture crop income insurance.

But, he said, it was not easy to implement as the resources required were huge and the Centre and the States need to join hands to make the scheme work.

“Climate change is no longer a matter of debate. While our contribution to global warming is not much, there is no other country which is more affected by climate change. It is something that we have to be proactive on and not reactive to,” Jairam Ramesh, MP and former Minister for Environment said.

PDS reforms mooted

Mr. Ramesh said there was a need for major reform of the public distribution system and the National Food Security Act to ensure that vulnerable groups got access to at least the minimum requirement of nutrition and health.

Chalk out action plan to make agriculture profitable: Badal

Punjab Chief Minister Parkash Singh Badal on Sunday urged the Centre to constitute a committee to chalk out an action plan to make agriculture a profitable venture so that farmers don't commit suicide.

Agriculture is facing an acute crisis and the need of the hour was to save it, so as to ensure that country's food security was not in peril, Mr. Badal told media persons on the sidelines of a function to observe martyrdom day of Parja Mandal leader Shahed Bhagat Singh Dhandogal here.

He said that the committee should be asked to give its recommendations at the earliest and the Union government must take no time in implementing it.

“Agriculture is no longer a profitable venture as its input cost have increased manifold whereas the farmers are not getting remunerative prices of their harvest,” Mr. Badal added.

The Chief Minister said that the powers regarding agriculture in the country were in the hands of the Centre and the State governments have hardly any role in fixing the prices of crops or the agriculture inputs.

Mr. Badal said that he had been raising the issue of agrarian crisis with the past and the current government at the Centre with a plea that the formula given by renowned agri-scientist M. S. Swaminathan, regarding fixation of MSP of crops, must be implemented for the safeguarding the interests of the peasantry.

“Any further delay in this regard will prove fatal and the agriculture in the country will be ruined,” he added.

The Chief Minister said that it was unfortunate that even after passing of more than 67 years of Independence the dreams of the freedom fighters have not been fulfilled yet.

Meanwhile, Deputy Chief Minister Sukhbir Singh Badal said the State government has decided to revive the industry in the historical town of Sri Goindwal Sahib and prepared a comprehensive plan to allot land to industrial giants to set up their units.

“The State government would allot plots to industrial giants, like Nerolac and Indian Oil Corporation, and other companies after a thermal plant is set up under the industrial revival plan at Goindwal Sahib,” he told reporters after paying obeisance at the Golden Temple along with his wife and Union Minister Harsimrat Kaur Bada here.

He said the second ‘Progressive Punjab Investment Summit’, to be held in October this year, will be a platform to showcase the investment opportunities in the state offering maximum incentives.

The Punjab government has received good response not only from industrial giants in the country but also from foreign countries like France, Poland, Hungary and Taiwan.

He further added that Volvo would set up a production unit in the State and a team from the company will visit the state in November to identify the suitable location-PTI.

Spread of groundnut crop dips in Anantapur

Farmers continue giving up the trade at an alarming rate

Groundnut farmers at work in a field at Kadiri in Anantapur on Sunday.-

If the scale of groundnut seed distribution is anything to go by, farmers in Anantapur district continue giving up the trade at an alarming rate of over 20 per cent, year on year.



Of the 10 lakh hectares of farm land in the district, farmers in over seven lakh hectares had gone for groundnut, a major crop in the district. In fact, Anantapur has been the largest groundnut producing district in the country. More than 6.5 lakh farmers are involved in the cultivation of the crop.

However, since 2010, there has been a slide in the number of farmers taking to groundnut cultivation. In fact, more than 4 lakh farmers have left farming altogether, going by the number of beneficiaries availing groundnut seed distribution by the government in the district. In 2009, more than 6 lakh farmers availed the offer, while it has come down to 1.30 lakh in the current year, a fall of around 80 per cent.

While the total beneficiaries of the seed distribution by the government increased by almost 72 percent to around 2.4 lakh beneficiaries from the meagre 1.39 lakh beneficiaries in 2014, the net sown area of the crop decreased by 20,000 acres to just 1.6 lakh hectares in 2015 from around 1.8 lakh hectares in 2014.

According to Agriculture Department officials, the initial growth in the number of beneficiaries was probably owing to the early and decent spell of rain. But, the poor rainfall later in the district resulted in even fewer farmers taking to groundnut cultivation.

It is a fact that farmers are turning to alternate crops such as cotton.

“Several lakh hectares are expected to be left fallow this year owing to lack of rain, institutional credit, ground water and willingness to experiment with agriculture,” says Malla Reddy of AF Ecology Centre.

Farmers continue giving up the trade at an alarming rate

Hyderabad scientists synthesise novel low-calorie fats

Health-conscious individuals need no longer worry about the high calorific value of the vegetable oils they consume.

Scientists at the Indian Institute of Chemical Technology (IICT), Hyderabad, have developed novel low-calorie fats based on edible oils like sunflower that provide 5.2 K cal/g as against 9 K cal/g by the vegetable oils; they have shown promising health benefits in studies conducted in rats and rabbits.

The nutritionally improved synthesised fats are trans-free and have the potential to be used as frying oil and replace bakery fats, according to Dr. R.B.N. Prasad, Head of Centre for Lipid Research, IICT. The fats have shown to lower serum, liver cholesterol and triglycerides in rats and reduce fat accumulation in arteries in rabbits.

Studies have also indicated similarities in thermo-physical properties of bakery fats and the newly synthesised fats.

He said the utility of the novel low-calorie fats was demonstrated in confectionary products prepared in collaboration with the Central Food Technological Research Institute, Mysuru. Its safety was also validated in collaborative studies with National Institute of Nutrition. “Basically, we have proved the concept and the technology is ready for commercialisation,” he added.

Explaining the process of how the low-calorie fats were developed, Dr. Prasad said that basically ethyl behenic acid was incorporated into refined sunflower and soybean oils after about 25 per cent of fatty acids was removed in each of them.

Referring to beneficial effects on health, he said the low calorie fat was non-toxic and reduced serum and liver lipids, particularly cholesterol, LDL cholesterol and triglycerides while maintaining essential fatty acids. When given to rabbits, it prevented lipid accumulation in arteries. Unlike bakery biscuits, the low-calorie-based biscuits do not contain trans fatty acids, while ensuring no significant difference in the quality and sensory parameters when compared to conventional bakery biscuits.

Dr. Prasad said that the per capita consumption of vegetable oil was 14 kilos per year, which would translate into 1.1 kilos/month (35 grams a day). With the commercially available vegetable oils giving 9 k cal/g, the total calories intake would be 315 k cal/g as against only around 180 k cal/g from the same quantity of low calorie fats. He said that another major advantage with the synthesised low calorie fats was that they contain essential fatty acids which was not the case with the commercially available low-calorie fats. Overall, they lower cholesterol, provide essential fatty acids and the calorie intake would be 40 per cent less for the same quantity of commercial vegetable oils.

Mettur dam opened, 12 lakh acres to benefit

Farmers want govt. to get its due from Karnataka as per tribunal award

The sluices of the Stanley Reservoir in Mettur were opened for delta irrigation for the 82nd year to benefit 12 lakh acres.

While agricultural officials say “the situation is slightly better than last year”, farmers expect the State government to get its due from Karnataka as per the Cauvery tribunal’s final award.

Poor storage this year

Though it is customary to release water on June 12 every year, the water release was postponed this year owing to poor storage (74.21 feet).

Only after the level crossed 90-foot mark on July 22, Chief Minister Jayalalithaa ordered the release of water on August 9.

Collector V. Sampath opened the sluice gates of the reservoir at 3.30 p.m. in the presence of S. Asokan, Chief Engineer (WRO), Tiruchi Region, PWD.

5,000 cusecs released

Initially, 5,000 cusecs was let out in the Cauvery and it would be stepped up to 13,000 cusecs in a phased manner, said officials.

Mr. Asokan told mediapersons that desilting and maintenance work were carried out in important channels for a length of 873.08 km at a cost of Rs. 9.45 crore to enable the water to reach delta districts without any hindrance.

The share from Karnataka as per Cauvery Water Disputes Tribunal final award and good monsoon could improve the storage in coming days. The water would reach Grand Anicut on the night of August 12, he said.

Though farmers are happy about the release of water for irrigation, they wanted the State's share of water to be obtained from Karnataka.

Tamilaga Vivasayigal Sangam State general secretary K. Sundaram said that the water level in the reservoir at present would not be sufficient to meet the requirements for the entire samba cultivation. Therefore, the government should ensure the State received its share of water from Karnataka as per the Cauvery Water Disputes Tribunal final award.

Mr. Sundaram also said that fertilizers, pesticides and other materials should be made easily available for the farmers to carry out the cultivation.

He also wanted desilting to be done in channels in delta districts so that all the farmers would be benefitted.

Hurdles galore for aqua farmers

Non-availability of quality seed, feed and grievance redress system to blame

With the government having identified the fisheries sector as a growth engine, challenges loom large over aqua farmers from East Godavari district.

In a district where statistics indicate that fish and prawn tanks, spread across 15,587 hectares, have the potential to be expanded to 7,891 hectares, aqua farmers complain of non-availability of quality seed and feed, uninterrupted power supply and a grievance redress system.

“This year, six containers of prawn were rejected by exporters on grounds that they had pesticide residues. Though the rate of rejection is comparatively low, there is a need to educate farmers,” says K. Shanmukha Rao, Officer on Special Duty at the National Centre for Sustainable Aquaculture (NaCSA).

As a rule, each container consists of 18 tonnes of prawn, and the rejection hits the price of the produce in the local market badly.

“There is no mechanism to check the quality of seed available in hatcheries. Though I had not used pesticides, laboratory tests indicated that there were pesticide residues in the crop, which, I found, was owing to the fact that antibiotics were administered to shrimp in the hatchery. With whom will I lodge a complaint now?” asks M. Dora Babu, an aqua farmer from Gollapalem. Interestingly, Kakinada has the largest number of shrimp hatcheries in the State, and aqua farmers from far-away places visit the place for purchase shrimp.

Meanwhile, farmers are livid over the spiralling hike in feed prices and electricity charges in recent times. “There is an urgent need for a tariff relief for aqua farmers. Similarly, a mechanism to check the quality of feed being sold in the market is necessary, as we are unaware of the ingredients and their nutritional values,” says Ch. Venakta Surya Rao, an aqua farmer from Matlapalem.

Though there is a mechanism to check the quality of pesticides being used by farmers, aqua farmers are yet to have access to it. “As we are unaware of the market price, middlemen are making money by quoting low prices,” he complains. Along with the challenges, there are advantages, too, for aqua farmers. Banks are prepared to finance Rs. 5 lakh per annum per acre for aquaculture, which is just Rs. 25,000 per year for agriculture. “All we need is a licence for the tank. But, most farmers are unaware of the importance of licence, and they do not obtain it,” says Ch. Srinivas, district coordinator (loans) at Andhra Bank.

Meanwhile, arrangements are in place to announce an Aqua Potential Zone near Amalapuram soon. “East Godavari will be the first district to earmark such a zone,” says H. Arun Kumar, District Collector.

He adds that norms will be simplified for aquaculture and arrangements will be made for a tie-up between patta holders and experienced aqua farmers, so that patta lands can be converted into fish tanks.

Mango orchards sound death knell for river

The once mighty river Gayathripuzha has turned into a trickle despite a relatively better monsoon in the eastern region of Palakkad.— Photo: K.K. Mustafah

Rapid changes in land use patterns at Muthalamada and Pattenchery grama panchayats, located on the eastern borders of Palakkad district, in the recent years are contributing to the imminent death of the Gayathripuzha, confirms a study conducted by Kerala State Land Use Board.

As per data available with the board, 67 per cent paddy lands in the two panchayats, which earlier facilitated groundwater recharge, have been converted to mango and coconut groves.

The Gayathri river is the major feeder of Bharathapuzha and a perennial source of drinking and irrigational water for thousands of families in Kollengode, Nenmara, Alathur, and Vadakkancherry. Being the mango capital of Kerala, Muthalamada and adjacent Pattenchery are promoting large-scale conversion of paddy fields to mango farming.

“Paddy fields that ensure steady seepage into the river have all been drained by creation of huge drainage channels called ‘akampadom chals.’ In other panchayats in the river basin, the extent of conversion is just 12 per cent, but here the paddy fields along the critical ridge line, called *potta kandoms*, have undergone massive conversion to garden lands. This is as harmful as dismantling a hill upon a ridge,” say the board’s regional assistant director R. Rugmini and agricultural officer V. Bindu.

“With widespread conversion of paddy lands, the overland flow to the river is reduced.

Ponds along the path of the overland flow are in an utter state of neglect. In Muthalamada, conversion of ponds to garden land is picking up pace. Sparse natural streams have now lost their connectivity to the main river. When the groundwater availability of this region is thus seriously hampered, farmers heavily depend on borewells,” says their study.

“Borewells are sunk indiscriminately all over this fragile land, further depleting the groundwater.

In Muthalamada, their density is as high as 2 or 3 numbers per acre and the average depth ranges from 400 to 600 ft. The borewells are used to irrigate the mango orchards. In Elavencherry, even paddy is widely irrigated using borewells,” they say.

“The quality of groundwater and surface water in this region should be investigated. The mango orchards of Muthalamada are heavily dependent on pesticide sprays and hormone application to soil.

Spraying by means of tillers and power sprayers creates a huge aerial drift that may pollute water sources of the area. Leaching through soil is also possible,” says the study.

District panchayat’s organic vegetables sale from today

Minister for Agriculture K.P. Mohanan will inaugurate the sale of vegetables harvested from organically grown farms of the district panchayat at a function to be held at the district pachayat complex here in the evening on August 10.

The first crop of these vegetables will be sold as kits comprising eight vegetables of 500 grams each at the rate of Rs.110 per kit.

The kits will contain cucumber, snake gourds, bitter gourds, long beans, ladies finger, pumpkin, ivy gourds, and bottle gourd. District panchayat secretary K. Anil Kumar said that, in the following days, vegetables would be sold separately from a special counter at the district panchayat complex.

The crops were grown with the aim of harvesting them for Onam. District panchayat president S. Jayamohan said favourable climatic conditions and earnest efforts from the side of Agriculture Department and representatives of the people resulted in the crops getting ready for harvest much earlier.

But the harvests will continue till Onam he said.

At the same function, the Minister will also inaugurate the sale of packets containing steamed traditional sweetmeats like valsan, theraliappam, kozhakatta with jaggery and coconut scrapes, ariyunda and thavidunda. Mr. Jayamohan said such eatables were healthy and safe food compared to the bakery items.

Kits comprising eight vegetables of 500 grams each to be sold for Rs.110.

Sufficient work for agriculture labourers

Agricultural labourers on their way to fields at Ranvelli in Adilabad district.

In stark contrast to the season last year, enough wage employment has been generated this kharif to keep the entire agricultural labour force in Adilabad busy right from the start of operations in June.

Thanks to the monsoon which has greatly favoured agriculture in this district the working class will get to earn comparatively handsome incomes until the end of the season.

The labour force in Adilabad is about 12 lakh strong going by the number of wage seekers registered under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Half this number are women and 2 lakh of them comprise the chunk of agricultural labour sector in this district while only a fraction of men are required to work in the fields.

The current daily wage of a male labourer in cotton fields is Rs. 200 while that of a woman worker is Rs. 150. In June, the workers get employment for about 12 days mostly for sowing and fertilizer application.

The workers have their hands full in July and August when weeding operations are in full swing.

In the next two months, September and October, they will get employed only for about 12 days and if the season keeps on right track, November, December and January will give them about 20 days of work for picking cotton.

“This season has certainly brought some relief,” says a beaming Tapre Bhagirhabai from Pusai in Jainad mandal as she heads hurriedly towards her place of work.

“I can repay my debt to the local grocer,” she adds.

On an average, a woman labourer can earn a minimum of Rs. 23,000 during the seven month season of cotton crop which is considered to be a fabulous sum in the poorer sections of society.

Those women who have their husbands also contributing in the work boast an income of about Rs.40,000 from agriculture work during kharif.

Azolla cultivation the answer to green fodder shortage

Krishi Vignan Kendra is promoting the cultivation of Azolla, an aquatic plant, known as multi-animal feed, bio-fertiliser and mosquito repellent

Use of Azolla being explained as part of a demonstration at Krishi Vignan Kendra in Wyrā of Khammam district.

In an effort to address the recurring shortage of green fodder, particularly in drought-prone areas, the Krishi Vignan Kendra (KVK) in Wyrā has been promoting the cultivation of Azolla, an aquatic plant, known as multi-animal feed, bio-fertiliser and mosquito repellent.

Awareness programmes on the multifarious uses of Azolla constitute the crux of the extension and outreach activities of the KVK in the form of field demonstrations.

The KVK has laid renewed emphasis on promoting Azolla cultivation in the five adopted villages even as drought-like conditions continue to persist in several parts of the district.

Under the National Innovations in Climate Resilient Agriculture (NICRA) project, the Wyrā-based KVK sanctioned five Azolla units, one each to five farmers in the drought-prone Nacharam village in Enkur mandal a couple of months ago.

The KVK is engaged in consistent efforts to educate farmers on the multiple uses of Azolla as a supplementary feed for cattle, particularly for milch animals, and its other benefits, says N. Kishore, Subject Matter Specialist (Extension).

Our field demonstrations offer hands on experience on making Azolla beds to the farmers apart from highlighting the efficacy of the eco-friendly Azolla widely recognised for its multiple benefits.

Those who used Azolla method in Nacharam village claimed substantial increase in milk yield from the milch animals, he notes.

We are reaping rich benefits by adopting the low cost and simple method of Azolla cultivation due to its potential as cattle and poultry feed, also as organic fertiliser and an eco-friendly technique for keeping mosquitoes at bay, remarks K. Srinivas, a farmer from Nacharam.

FRAT going organic way

The Federation of Residents Associations, Thiruvananthapuram (FRAT) in the Sreekaryam region is going the organic way.

This was announced at a workshop on organic farming organised by FRAT, in association with the District Information Office and the Agriculture Department.

The initiative is aimed at vegetable cultivation in courtyards of houses and on rooftops so as to achieve self-sufficiency in one year.

Help to be sought

The help of the Agriculture Department and the College of Agriculture, Vellayani, will be sought.

Classes will be held in each residents' association to assess the progress.

The workshop was formally inaugurated by M.A. Vahid, MLA. He said the government was taking steps to prevent the entry of vegetables sprayed with deadly pesticides from other States but this was not sufficient.

People should turn to organic farming, so that diseases caused by consuming vegetables laced with pesticides could be prevented.

The workshop discussed rooftop farming practices and organic farming and pest control among other things.

City Corporation Education standing committee chairperson K.S. Sheela was the chief guest.

FRAT Sreekaryam region president K.G. Babu Vattaparambil presided over the function.

V.B. Padmanabhan, professor in Vellayani college's Agriculture Extension Department, spoke to residents' associations members and students about rooftop farming.

Organic farmer R. Ravindran spoke about organic pest control and Vattiyurkavu Agricultural Officer Asha Raj on environmental engineering and scientific farm practices.

Seeds were distributed under the aegis of the Agriculture Department to the participants to enable them to start organic farming.

Small farmer, big on ideas

Scientists and experts from about 30 countries have visited his farm

Fifty-five-year-old H. Sadananda is a cult figure among farmers and farm scientists today. Experts and policy makers from 30 countries have visited his farm, a testimony to his popularity. The reason? He has been consistently getting an annual income of Rs. 8 lakh to Rs. 10 lakh from his 2.1-acre farm in Tapasihalli of Doddaballapur taluk, through integrated farming.

Mr. Sadananda, who studied up to SSLC, may have been a factory worker first, but his scientific approach and prudent management of finances today matches that of experts.

While a common farmer would have generally grown two or three crops on 2.1 acres of land, Mr. Sadananda cultivated nearly 30 varieties. “Even if a few crops fail, others yield income. There is no question of complete washout,” he says, confidently.

He has picked his crops so as to ensure that he not only gets income from multiple sources, but also at different intervals. He gets daily income from some crops, while others get him income once a month, quarter or annually.

He grows roses on about three-fourth acres, which gets him a daily income. There is areca plantation on about half an acre, and vegetables are grown on another half acre. He has dedicated quarter of an acre for hi-tech farming, where he grows cucumber and capsicum under polyhouse. Amid this, he has also made space for a vegetable nursery and a small pond for fish-rearing. There are also a few coffee plants, lemon and some fruit-yielding saplings. The border of his farm is well utilised for growing coconut and jackfruit.

This is not all. He also rears Giriraja hens under arecanut trees by feeding them vegetable waste. After selling these big birds, he grows ginger on his land, which becomes fertile with droppings of the chicken.

He is into dairy farming, with six cows in the shed. The cow dung is used for generating bio-gas, which helps take care of his family's cooking requirements. The slurry from the bio-gas unit is later converted into vermicompost, which is supplied to plants through drip irrigation system that is backed by a borewell.

Annamalai University students camp at village, reach out to farmers

A group of 22 final year students of Annamalai University and faculty of Agriculture have taken up an intensive campaign among farmers of Sozhampettai, about 6 km from here, on crop protection techniques.

Camping in the village as part of their rural agricultural workshop, the students have planned to sensitise farmers to preventive measures in pest attack, judicious use of water for irrigation, and the advantages of 'System of Rice Intensification' and so on.

"We identified the village after a detailed study on cropping pattern, cluster of fields available, and cultivation practices of farmers at several villages in Mayiladuthurai block," says S. Muthusamy, coordinator for the camp. Students have been preparing various charts to explain the importance of protecting coconut trees from various diseases.

"The bunch top disease in banana has been another concern to farmers of this village," say N. Lalu and K. Muthuvenkatesh.

Since most farmers had not been exposed to any other fields, the students have prepared visual kits to explain the impact of various insects and diseases on plants and crops.

"We explain the impact of diseases in coconut using the visual impact," they say, showing the number of paintings they have been preparing to drive home the corrective cropping practices to be adopted by farmers.

R. Muthukumar, faculty member of the university, said that most farmers had raised 'ADT 48' during the current 'kuruvai' season. The camp will conclude

on August 14. The students would visit various fields in the village and have interaction with farmers, he added.

Pre-kharif agri campaign at KVK on August 9, 10

A pre-kharif (pre-samba season) agriculture campaign and conference is to be held at Krishi Vigyan Kendra, Sandhiyur, here on August 9 and 10.

The programme includes showcasing pre-kharif season related agriculture technologies, demonstrations and interactions. Scientists from Tamil Nadu Agricultural University will talk on crop specific technologies for the ensuing samba season. Agro forestry seedlings and seeds will be distributed to the selected farmers for promotion of new technologies. All the farmers from 20 blocks of the district can participate in the programme to learn new agriculture technologies.

A special training programme on pre-samba agriculture and horticulture technologies will be conducted on August 10 in which farmers can interact with scientist and officials from the Department of Agriculture and the Department of Horticulture. The agriculture exhibitions and KVK sales centre are to be opened in the presence of Collector V. Sampath, and Member of Parliament V. Paneerselvam. MLAs, Director of Extension Education, TNAU, Coimbatore, and other local body representatives are expected to attend.

Kufos to form farmer groups for Vannamei culture

Kerala University of Fisheries and Ocean Studies (Kufos) will form farmers' groups to better organise and spread Vannamei shrimp farming in the State and to help farmers to export the produce without intermediaries.

As part of its efforts, the university also plans to organise an aqua exhibition and extensive training programmes, said a press release here. The aqua exhibition will be held here on August 20 and 21. The exhibition will be a venue for the potential shrimp farmers to meet exporters and feed suppliers.

The university will help the farmers get licences from Coastal Aquaculture Authority, Chennai, for Vannamei farming. For better access to international markets, the university also plans to help farmers get Aquaculture Stewardship Council certification.

The university authorities are of the opinion that the farmers should be able venture into Vannamei farming without large investments initially.

A seafood export group has expressed willingness to offer the farmers Vannamei seeds and feed on a buy-back basis, the press release said citing Vice-Chancellor B. Madhusoodana Kurup. Agencies like the Central Institute of Brackishwater Aquaculture and Coast Aquaculture Authority are cooperating with Kufos in the Vannamei venture.

For more details contact: 0484-2502587, 9645903087, 9446032977.

‘Matthi’ fish arrivals on the rise

Arrivals of ‘matthi’ fish has been on the rise in the recent days on the shores of Poompuhar and fishermen have been brisk marketing the same to Kerala – the largest consumer of this variety of fish.

According to a cross section of fishermen, it was but a natural phenomenon that the ‘matthi’ is available only during the annual post-ban period.

This year, to their surprise, they did not realise any appreciable catch although the ban, which was in force from April 15 to May 29, had come to a close about a couple of months ago.

One of the fishermen, V. Kalidas, told *The Hindu* at Poompuhar that the ‘matthi’ fish was abundantly available particularly in the last one week.

He said though it was caught regularly in the coastal areas, the quantum was far less in the past two months.

Largest consumer

The largest consumer of the fish is Kerala. No sooner the fish reaches the shores of Poompuhar, a number of women carry the fishes in boxes to be weighed on the shore.

A couple of labourers immediately mix it with ice and the consignment is loaded to a nearby truck bound for Kerala.

The fishermen say that the average daily despatch of fishes to Kerala stood at 12 tonnes from Poompuhar.

“The catch is quite uncertain, sometimes it reaches even 20 tonnes or dips to just five tonnes,” says Mr. Kalidas.

Another fisherman R. Bharathi of Kovilpatti near Sirkali pointed out that as many as 650 fishermen in and around Poompuhar rely on catching ‘matthi’ fish.

Vanagiri, Perumalpettai, Vellakovil and Chinnalapettai are the major villages where fishermen rely on this variety.

Traders from Kerala fix a price for a country boat-load of catch which now stands at Rs.30,000.

In the absence of a harbour, the boats are parked on the shores.

It involves an intensive manual labour with the women workers carrying the fish head load from the shores up to the truck-bay. “Construction of a harbour in the nearby area will be a boon to us as it will facilitate direct landing and anchoring of mechanised boats.

Presently, the catch is shifted from mechanised boats to country boats,” says Mr. Kalidas.

The catch will last from August to October. Nagapattinam district in general and the Poompuhar belt in particular was noted for the fish, they said.

3,500 quintals of turmeric auctioned

Turmeric worth Rs. 1.70 crore was auctioned at the Tiruchengode Agricultural Producers Cooperative Marketing Society here on Saturday.

Varieties

While ‘virali’ turmeric fetched a price ranging between Rs. 5,589 and Rs. 9,399 per quintal, the ‘kilangu’ variety fetched a price between Rs. 5,199 and Rs. 7,888 and ‘panakali’ variety between Rs. 6,299 and Rs. 18,799.

About 3,500 quintals of turmeric was auctioned for Rs. 1.70 crore, a press release of the society issued here on Saturday said

Coconut kernel

Meanwhile, about 140 bags of coconut kernel were auctioned for Rs. 4 lakh at the Mallasamudram branch of Tiruchengode Agricultural Producers Cooperative Marketing Society also on Saturday. The first quality coconut kernel fetched a price between Rs. 73.65 and Rs. 82.05 per kg; second quality between Rs. 43.65 and Rs. 53.65 per kg, the release said.

Training in home gardening

The Department of Horticulture will organise a training programme for the people in home gardening and terrace gardening at Sadhanakeri park here on Wednesday at 5 p.m. It is open for all. Those who wish to participate will have to bring an election photo identity card or the Aadhaar card, said a release by the Department of Horticulture.

Coconut price to remain steady, says Board

Coconut Development Board has said that the price of coconut and oil should hold firm even beyond Onam as the peak season for nuts in major producing areas has come to an end.

A statement issued by the Board here said that reports to the contrary were wrong and blamed vested interests for trying to force down the price of coconut oil and nuts.

“The increase in price of copra and coconut oil in the market is a known factor”, the Board said as it focused on what it called lobbying by some quarters to push down the price of nuts and value-added products at a time when there was no chance of a price fall. The start of the festival season in North India is expected to support the prices up to February-March, when the season begins in Kerala, the release said.

Going green will relieve stress, say horticulturists

Green Tree Club member K. Visala with the flowering plants in the rooftop garden raised in her building at Seetharampuram in Vijayawada.—Photo: Ch. Vijaya Bhaskar

Raising greenery in houses, rooftop gardens, vegetable and flower plantations will relieve people from mental stress. Besides, gardening is a good exercise, say horticulturists.

Green lawns and terrace gardens will help to reduce urban temperatures, prevent pollution, disease and provide fresh vegetables and fruits. Elders in the families should train children in raising gardens, said the officials.

At a training programme organised by the Department of Horticulture in the city recently, horticulture officials and resource persons from Gardens of Abundance explained the importance of greenery in houses.

They taught the participants on raising fruits, medicinal and vegetable plants in the lawns.

Resource person Upendra said that plants can be raised in pots, plastic buckets and polythene bags on the terraces, which will reduce heat. He explained different methods of plantations to the master trainers. “We can use kitchen waste to prepare compost and avoid waste. Compost is a good manure for the plants raised in terrace gardens,” said Mr. Upendra.

Assistant Director (Horticulture) N. Sujatha said the State government has recently introduced a scheme ‘urban farming’ to encourage gardening and rooftop gardening in towns and cities. The government will provide a kit, worth Rs. 3,000 on 50 per cent subsidy.

“The Horticulture Department will provide sand, seed, trellis, rose can, cages, hand sprayer and other material. Mini kits are being supplied in rural areas also to encourage gardening at homes. Vegetables such as brinjal, tomato, ladyfinger, chilli, bitter gourd, ridge gourd and many leafy vegetables can be raised in the gardens,” said the AD. Government is planning to organise a workshop on ‘green houses’ in Vijayawada soon. Horticulture scientists will throw light on raising different fruits, vegetables and flower plantations in

lawns, in the programme. Horticulture Department staff will visit colonies and explain about the scheme to encourage rooftop gardens, said Ms. Sujatha.

“People will go for an outing to relax with families. If we raise greenery in our lawns and on the terraces, we can reduce urban warming and maintain good health. Interior decoration with water plants and bonsai is also a good practice,” the AD said.

Green Tree Club member K. Visala, who is raising a rooftop garden at Seetharampuram in the city, said that more than 50 varieties of flowers and bonsai plants were being raised in the garden.

Many people are visiting the garden, which won many prizes in horticulture exhibitions, she said. “I will do gardening regularly and spend some time in the lawns. We don’t buy vegetables and flowers outside and consume fresh vegetables only. Gardening is a good exercise and gives peace of mind. We will bring different varieties of saplings from Kadiyam Nurseries located in East Godavari and other nurseries,” said Ms. Visala.

Department launches schemes for rooftop gardens

Rice mill to tap overseas market for brown rice

Seeing a huge market for low calorie, and fibre and vitamin-rich brown rice abroad, a rice mill firm based at Komaripalem village in East Godavari district has decided to export its new variety to South Africa, South East Asia, and other regions.

Sree Murali Mohana Boiled & Raw Rice Mill (Pvt.) Ltd on Sunday announced the launch of brown rice and idly rava under its brand name ‘Bell’. It wants to increase its turnover this year from Rs.750 crore to Rs.800 crore.

Company’s chairman Chinta Panduranga Reddy told reporters that the demand for brown rice in South India was huge due to high incidence of diabetes.

He said that before white rice went through the refining process, it looked exactly like brown rice. “Though white rice is more delicious, brown rice tops in terms of both nutritional and other inherent healthy benefits,” he added. Brown rice would also help shed weight because of its low glycemic index (GI).

India on top in exporting beef



India retains its top spot as the world's largest exporter of beef, according to data released by the U.S. Department of Agriculture, and has extended its lead over the next highest exporter, Brazil. It must be noted, however, that the U.S. government classifies even buffalo meat as beef.

According to the data, India exported 2.4 million tonnes of beef and veal in FY2015, compared to 2 million tonnes by Brazil and 1.5 million by Australia. These three countries account for 58.7 per cent of all the beef exports in the world. India itself accounts for 23.5 per cent of global beef exports. This is up from a 20.8 per cent share last year.

Data from the Centre for Monitoring Indian Economy (CMIE) shows that most of India's buffalo meat exports go to Asian countries — Asia receives more than 80 per cent, while Africa takes around 15 per cent. Within Asia, Vietnam is the largest recipient, at 45 per cent.

India's buffalo meat exports have been growing at an average of nearly 14 per cent each year since 2011, and fetching India as much as \$4.8 billion in 2014. Last year, India for the first time earned more from the export of buffalo meat than it did from Basmati rice.

Several databases, including the United Nations Food and Agricultural Outlook, show that meat consumption in India is increasing. However, the data also shows that beef consumption has been falling over the years, down -44.5 per cent in 2014 from the level it was in 2000. This fall in consumption has been

taking place regardless of the political party in power. Chicken consumption, however, was up 31 per cent in that period.

Laws on cow slaughter

- **Fully banned**
- Andhra Pradesh, Telangana , Bihar, Chattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, J&K, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand
- **Allowed with slaughter certificates**
- Assam, Tamil Nadu, West Bengal
- **No ban**
- Arunachal Pradesh, Kerala (animals above 10 years), Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura

Move to beef up agricultural market infrastructure

In order to create an integrated agricultural market at national level, the Government has formulated a Central Sector Scheme for “Promotion of National Agriculture Market through Agri-Tech Infrastructure Fund (ATIF)” to be implemented with a budgetary outlay of Rs.200 crore during 2015-16 to 2017-18.

Under the scheme, an appropriate common e-market platform would be deployed in 585 selected regulated wholesale markets in States across the country.

Department of Agriculture and Co-operation (DAC) will meet expenses on software and its customisation for the States, and, in addition, will also give grant as a one-time fixed cost subject to a ceiling of Rs.30 lakh per mandi for related hardware, including equipment/infrastructure



Experts urge Centre to review food policy

When M S Swaminathan entered the agriculture sector as a young geneticist in the 1960s, the country was on the brink of a famine. Five decades later, the

yield of crops has grown multifold, and so has hunger. Calling for a revolution to achieve 'zero hunger', experts have urged the Centre to review the country's food policy, especially the distribution system.

Ministers, scientists and academicians who had congregated at an international conference at M S Swaminathan Research Foundation here on Sunday deliberated ways in which food security can be ensured. From waking up to the seriousness of climate change to re-assessing the demographic situation and looking for alternate sources of funding research activities, they came up with a series of suggestions to achieve 'zero hunger'.

Observing that one-third of the world's hungry people were in India, Union minister for urban development, housing and urban poverty alleviation Venkaiah Naidu emphasized the need to give up populist schemes such as freebies and focus on long-term development outcomes, such as crop insurance. He also said the government would rework the formula to fix the minimum support price (MSP) for crops like rice and wheat, but the move was being delayed due to financial reasons. The Centre now declares the minimum price at which it will buy various crops from farmers to prevent distress sale of produce.

Experts said the drastic fall in the production of pulses, in particular, is a matter of concern. Professor Swaminathan, who steered the Green Revolution in the 60s, expressed hope that the situation would improve. "I think it is already showing signs of improvement in terms of the gradual growth in the acres of land where pulses are cultivated. By next year, we can hope to wipe out the pulse deficit," he said. Presently, the country is banking on imports to meet the deficit. It is also initiating negotiations on bartering buffer stock in sugar against the requirement of pulses in order to meet the pulses deficit.

Nirmala Sitharaman, minister of state (independent charge) for commerce and industry said the government is in talks with the World Trade Organisation on subsidies for farmers. "We have the right to determine what can be done to support farmers. In addition, we also need to focus on the distribution and make it technologically-driven to ensure transparency," she said. She added that the change in dietary pattern because of cost and its effects on nutrition status are serious matters that require consideration.

Farmers get meagre crop insurance claim

Bhandara: Farmers in Bhandara district have received meagre settlement from Agriculture Insurance Corporation of India for crop losses incurred last year. Small farmers holding up to 5 acres got 441 from the company while the premium paid was 135 per acre. Similarly, farmers having more than 5 acres received 1,100 while the premium was 1,235.

The farmers, 1,564 small and general, and 120 big, had paid the premium through banks from where the crop loan was taken, particularly Bhandara District Central Cooperative Bank, in 2014-15. As per norms, the sum insured per acre for small farmer is 6,000 and sum insured per acre for big farmer is 14,960.

Palandur Revenue circle (taluka Lakhani) is the worst affected in the district where the average crop was below 60%. The insurance company settled claim of 1,800 farmers from the circle. They should have got claim of 5,200 per acre as per the minimum support price offered by the government. However, farmers got a very low settlement amount.

Insects can contribute to food security

Insects are going to have a major contribution to food and feed security says Priyadarsanan Dharma Rajan, senior fellow at Bengaluru based Ashoka Trust for Research in Ecology and the Environment (ATREE).

Insects comprise at least 85% of biodiversity and play the most important roles in the sustenance of the biosphere said Priyadarsanan Dharma Rajan who added that loss or reduction of any important taxa of the insects can cause a cascade effect on the ecosystem. "Insects are going to be major contributors to food security in future. In fact in many nations insects are already on platter. In India we have not yet focused on insects from this perspective," he said addressing scholars and members of the Forum of Environmental Journalists in India (FEJI).

Food and Agriculture Organisation of United Nations (FAO) is conducting various researchers are working on food security and the organization feels that population growth, urbanization and the rising middle class have increased the

global demand for food, especially animal-based protein sources.

"The traditional production of animal feed such as fishmeal, soy and grains needs to be further intensified in terms of resource efficiency and extended through the use of alternative sources. By 2030, over 9 billion people will need to be fed, along with the billions of animals raised annually for food and recreational purposes and as pets. Moreover, externalities such as land and water pollution from intensive livestock production and over-grazing are leading to forest degradation, thereby contributing to climate change and other environmentally destructive impacts. Solutions need to be researched and explored," states the FAO document on food security.

The organization is also working on concept of insect farming. "Insects are everywhere and they reproduce quickly, and they have high growth and feed conversion rates and a low environmental footprint over their entire life cycle. They are nutritious, with high protein, fat and mineral contents. They can be reared on waste streams like food waste. Moreover, they can be eaten whole or ground into a powder or paste, and incorporated into other foods. The use of insects on a large scale as a feed ingredient is technically feasible, and established companies in various parts of the world are already leading the way in this regard," states FAO.

FAO predicts that insects as feedstock for aquaculture and poultry feed are likely to become more prevalent within the next decade. According to the International Feed Industry Federation, global compound animal feed production was 720 million tonnes in 2010. Insects can supplement traditional feed sources such as soy, maize, grains and fishmeal. Insects with the largest immediate potential for large-scale feed production are larvae of the black soldier fly, the common housefly and the yellow mealworm - but other insect species are also being investigated for this purpose. Producers in China, South Africa, Spain and the United States are already rearing large quantities of flies for aquaculture and poultry feed by bio-converting organic waste.

US market will breach ₹100-crore revenue mark, says Amul chief

After years of exporting Amul products to the US market to feed the Indian diaspora, the Gujarat Co-operative Milk Marketing Federation Ltd, or Amul, has begun making some of its products at a facility in New Jersey a few months ago.

“We have started our production in the US. We buy milk from local cooperatives and convert it into ghee, paneer and shrikhand under the Amul brand. A third party is converting it into our brand at its dairy.

“We have been exporting to Indians there but since we were facing problems we started manufacturing in the US,” says Rs. Sodhi, Managing Director, speaking to *BusinessLine*, after he received a distinguished alumni award at the Indian Management Conclave held recently at ISB, Hyderabad.

Value-added exports

Sodhi says Amul exported ₹240 crore worth of milk products last year; the year before it was ₹540 crore but the export market for commodities (milk) crashed. Amul will focus only on value-added export, avers Sodhi.

He expects the US market to eventually notch up ₹100 crore in revenue. “But our focus is on the domestic market,” he emphasises, even though Amul is exported to over 50 countries. The co-operative will also explore manufacturing in EU as exports to those markets are not allowed, he adds.

Amul’s turnover for 2014-15 was approximately ₹21,700 crore. Its daily milk procurement is around 14.85 million litres from 18,536 village milk cooperative societies.

Expansion plans

Sodhi says Amul will invest ₹1,000-1,200 crore a year for the next few years to expand its dairy facilities. Amul has 60 dairies around the country, all owned by it.

“This year, we will be adding many dairies: one each in Faridabad, Lucknow, Mumbai, Kanpur, Kolkata and three in Gujarat. A modern dairy requires approximately ₹250-500 crore to set up,” he says. It is also setting up a new milk powder plant in Gujarat at an investment for ₹500 crore and a cheese plant for ₹600 crore.

Asked about the financing of its investment plans, Sodhi says, “We borrow; we don’t have much profits or reserves, so we borrow to build, we get base rates for our credibility.”

Speaking on milk prices, Sodhi says it’s an extremely difficult situation all over the world as milk prices have crashed by 50 per cent. “Farmers of dairy countries such as New Zealand are getting half the prices from the same time last year; in Europe it is 30 per cent less. In Maharashtra also farmers are getting 30 per cent less.

“But our farmers are happy as we sell mostly value-added products; only 5 per cent is commodity (plain milk). Our margin is paid to the farmer,” Sodhi explains.

Elaborating on the New Zealand predicament, which exports 95 per cent of its dairy products, Sodhi says same time last year, skimmed milk powder was selling in the international market for \$4,000 a tonne but now has crashed to \$1,700 a tonne.

Increase procurement

In January, Amul launched pouch milk in Hyderabad, procuring it locally as well as bringing milk from Gujarat in insulated trucks.

The trucking cost works out to only ₹2 a litre. “Our strategy is to launch milk from Gujarat initially and then slowly step up procurement from local cooperatives. Local cooperatives are our ‘brothers’ too, we help each other,” explains the Amul MD. There are no immediate plans to expand further in the south, he says, as the cooperatives are fairly well run and offer “less opportunities for intervention,” he adds.

Tea prices move up in Kochi sale on low arrivals

Low arrivals boosted prices of several tea varieties at Kochi auctions. The quantity on offer in CTC dust was 8,73,000 kg.

The market for Good Liquoring teas in sale no 32 was ₹3 to ₹5 dearer and appreciated more as the sale progressed. However, PD's were barely steady and tended to ease besides witnessing some withdrawals.

Plainer grainier varieties were firm to dearer, while smaller grades were barely steady and tended to ease, the auctioneers Forbes, Ewart & Figgis said. However, there was a subdued demand from exporters and upcountry buyers.

The quantity on offer in orthodox dust was 15,000 kg, but the market was lower by ₹3 to ₹5 and witnessed heavy withdrawals.

In Cochin CTC dust quotation, Good grades fetched ₹95-134, mediums stood at ₹65-98 and plain varieties quoted ₹52-66.

In leaf sales, the market for select best Nilgiri brokens and whole leaf was steady to firm and sometimes dearer, while others were irregular and lower. The quantity on offer in Orthodox grades was 154,000 kg, which was low compared to last week.

Of the 78,000 kg on offer in CTC grades, the market for Good Liquoring brokens and Fannings was firm to dearer. There was active participation from upcountry buyers and exporters.

In the dust category, Injipara SFD quoted the best prices of ₹146 followed by Monica SFD at ₹135. In leaf grades, Chamraj FOP-sup Green tea fetched the best prices of ₹379 followed by P's Woodlands Hyson Green Tea at ₹288.

Spice development agency to focus on development of locally popular varieties

Farmers growing red chillies, tamarind and turmeric in Andhra Pradesh will soon get help as an exclusive Spices Development Agency has taken shape. They would get advice on best practices and on ways to improve profitability.

The agency, set up following a Central Government's decision, had met for the first time on Friday to discuss the modalities for preparing a roadmap. The Andhra Pradesh Chief Secretary, I Y R Krishna Rao, is the de facto head of the agency.

The Spices Development Agency will focus on development of locally popular spices such as chillies, tamarind, curry leaf and turmeric.

The agency, which would have 14 members drawn from the trade, farming, the government and other stakeholders, would work out of Guntur.

The Guntur Agency would work on better management of spices to meet domestic and other export requirements. The agency has been set up to establish such regional bodies under the supervision of the Spices Board.

“The agency would act as a bridge connecting several State and Central departments for the development of spices. It would bring in better farming techniques, processing and packaging methods to get more value to the produce in the domestic and global markets,” a Government official said after the meeting on Friday.

The Central Government has promised to allocate funds for the agencies after receiving proposals for specific programmes to be taken up by the local agencies.

Bell brand brown rice launched

Sree Murali Mohana Boiled and Raw Rice Mill Pvt Ltd., of East Godavari, a leading rice exporter and domestic merchant, released Bell brown rice and Bell idly ravva under its Bell brand here on Sunday.

On the occasion, Ch. Panduranga Reddy, the Chairman, said the rice mill with an annual capacity of over two lakh tonnes, was located at Komaripalem village in East Godavari district and "our company is a leading rice exporter through Kakinada port. We source rice not only from AP, but from other States as well."

He said the company was exporting rice to South Africa, Nigeria, Malaysia and several other countries. The company, started in 1983, achieved Rs 750 crore

turnover last year, half of it being exports, and this year turnover is likely to touch Rs 800 crore.

He said the brown rice would be beneficial to those suffering from diabetes, according to doctors, and since its shelf life is shorter than that of other types of rice, "we are releasing it in smaller packs of one kg also, priced at Rs 32 a kg."

He said the company had its own captive steam power plant with a capacity of 1.5 MW, using husk as the fuel. The most modern rice processing technology is being used in the rice mill, he added.

The company is employing 1,000 persons and it has its own fleet of 60 heavy duty trucks, warehouses and all other requisites.

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Govt allows export of rice bran oil in bulk

The Government has allowed export of rice bran oil in bulk and other edible oil in branded consumer packs of up to five kg with a minimum export price of \$900 (₹57,363) a tonne. Trade expects rice bran oil exports to jump sharply to 10,000 tonnes this fiscal against 2,000 tonnes achieved last year.

Untapped markets

India produces about 10 lakh tonnes of rice bran oil annually and is largely consumed in the domestic market. Bran, the brown layer on rice grain, has 10-25 per cent oil content. Though the rice bran oil is considered cheap and healthier, it has not gained popularity among Indian consumers as it does not have any particular taste unlike groundnut, soybean or sunflower oils.

India, one of the largest consumers of edible oil, imports about 10 million tonne (mt) of edible oil per annum. It meets about 60 per cent of its vegetable oil demand of 17-18 mt through imports.

Speaking on the sidelines of Global Rice Bran Conference organised by the Solvent Extractors' Association, Dr V Prakash, Scientist with Council of Scientific and Industrial Research said, "The decision to allow rice bran oil export in bulk without any limit may push up prices in the domestic market as

producers would find it easier to sell it abroad than packaging and labelling for the domestic market.”

However, he added, given the poor demand and low awareness of the benefits of rice bran oil, bulk exports will not have much impact for consumers.

Though India is the second largest producer of rice after China, the nation has not fully explored the potential of producing rice bran, which can be also be used in the pharma sector.

Competition brewing

China is slowly getting used to rice bran oil and it's a matter of time before it becomes the leading supplier of this oil.

Remedial measures

“India should consider importing raw rice bran from Thailand and do the value addition here to produce the oil,” said Prakash. BV Mehta, Executive Director, Solvent Extractors' Association said there is good demand for Indian rice bran oil in countries such as Japan and Thailand.

Since rice bran oil has no particular taste, it can be easily blended with any oil and may be imported back into India as a value added product or olive oil. Incidentally, the demand for rice bran oil in India is more in non-paddy growing northern and western regions than in the eastern and southern parts.

Spices Development Agency to boost local varieties

Farmers growing red chillis, tamarind and turmeric in Andhra Pradesh will soon get help as an exclusive Spices Development Agency takes shape.

They would get advice on best practices and ways to improve profitability. Established following the Centre's decision on a regional body under the supervision of the Spices Board, the Agency will focus on development of locally popular spices such as chillies, tamarind, curry leaf and turmeric.

Andhra Pradesh Chief Secretary IYR Krishna Rao, who's the de facto head of the agency, held discussions on Friday.

The Agency, which would have 14 members drawn from the trade, farming, the government and other stakeholders, would work out of Guntur to meet domestic and other export requirements.

“The agency would act as a bridge connecting several State and Central departments for the development of spices. It would bring in better farming techniques, processing and packaging methods to get more value to the produce in the domestic and global markets,” a Government official said after the meeting on Friday.

The Centre has promised to allocate funds for the agencies after receiving proposals for specific programmes to be taken up by the local agencies.

Supply glut cools palm oil

Global palm oil output is expected to rise 3.5 per cent to 61.45 million tonnes for 2014-15

Crude palm oil prices have been moving southwards for more than a year now, as demand for bio-diesel (which uses palm oil as input) has fallen due to the sharp correction in crude oil prices. The record harvest in soyabean and lower prices have also seen demand shifting from palm oil to soyaoil in major consuming countries like India and China. In March, Indonesia announced a plan to increase the blending rate of palm oil with diesel, to 15 per cent from 10 per cent currently.

This move was supposed to mop up excess supply in the market and aid prices. But as the move is yet to be implemented, the supply glut is keeping prices under pressure.

According to data from the US Department of Agriculture, global palm oil production is expected to rise 3.5 per cent to 61.45 million tonnes for the current oil year, 2014-15 (September-August) and another 6 per cent to 65.17 million tonnes the next oil year.

The surge in production could see inventories rising, thus keeping prices under check.

Medium-term view

On the global front, the Malaysian palm oil futures contract traded on the Bursa Malaysia Derivatives Exchange is currently at MYR 2,031 per tonne.

A crucial long-term trend line support is at MYR 2,000 and MYR 1,985. These supports are likely to be tested in the short term. Whether the contract breaks below MYR 1,985 or reverses higher from there will decide the next leg of the move.

A strong break below MYR 1,985 will see the current downtrend extending towards MYR 1,900. Further break below MYR 1,900 will put the contract in the danger of tumbling to even MYR 1,700. On the weekly chart, the price action reflects a formation of a rounding pattern.

This pattern suggests that the contract is more likely to break and fall below the MYR 2,000-1,985 support zone.

On the domestic front, the MCX-Crude Palm Oil futures contract is currently at Rs. 400 per 10 kg. It has key supports at Rs. 378 and Rs. 372. A reversal from these could ease the downside pressure. Such a bounce will have the potential to take the contract higher to Rs. 420 and even Rs. 450 thereafter. But a break below Rs. 372 can drag the contract lower to Rs. 360 initially.

Also, a further break below Rs. 360 will see the downtrend extending to Rs. 350 and Rs. 345.

Short-term view

Charts suggest that the short-term trend in palm oil is down.

A wedge formation is visible on the charts over a prolonged period between October last year and mid-July.

The bearish breakout of this pattern last month marks the beginning of a new leg of downmove.

It also suggests that the overall downtrend that has been in place since March last year remains intact.

Resistances are at Rs. 420 and Rs. 450.

A fall to Rs. 378 and Rs. 372 — the target level of the wedge pattern — looks likely in the coming weeks.

The downside pressure will ease only if the contract records a strong break and close above Rs. 450.

The ensuing target on such a break will be Rs. 475. But such a strong rally appears unlikely in the near term.

MCX-CRUDE PALM OIL

Supports:

Rs. 378, Rs. 372

Resistances:

Rs. 420, Rs. 450

Coimbatore village gets rural women technology park

Pillaiappan Palayam near Annur can no longer be dismissed as yet another village among the thousands in the country. The establishment of a 'Rural Women Technology Park' by PSGR Krishnammal College (PSGRKC) for Women on a 1.5 acre ground donated by the villagers in that belt has pushed this hamlet to the next level of development.

Rural women upliftment

The DST (Department of Science and Technology) sponsored park envisions upliftment of rural women by providing them job-oriented training programmes.

The programmes include training in bakery products such as millet cookies, jam, pickles, , manufacture of sanitary napkin, bio-briquette technology, extraction of banana fibre, community nursery and so on. While the duration for the said programmes varies from one week to a month, advanced diploma programme in garment designing and multi-media is also being offered, but the duration is between 3 months and 2 years.

The park has, since its inception in April this year, trained around 200 women in various vocations. “We are looking to upskill more people,” N Yesodha Devi, Secretary, PSGRKC, told *BusinessLine* .

The DST has sanctioned Rs. 50 lakh for establishment of the facility. The amount released till date is said to be of the order of Rs. 21 lakh.

The college management has constructed 3,000 sq.ft. building, where the training programmes are being conducted.

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Business Standard

Did Nestle India have the option to stop total Maggi recall?

Business Standard pieces together the events - all quite dramatic - that might have led to the country's first mega regulatory clampdown

Could a public statement by Nestle regretting "misleading label" related to monosodium glutamate (MSG) on Maggi noodle packets have prevented a pan-Indian recall of the product? Sources at the Food Safety & Standards Authority of India (FSSAI) suggest the Swiss food major was given the option of expressing regret in a public statement, for "wrongly" mentioning on the packets that the instant noodle had no added MSG. The issue on excessive lead, another defect found in Maggi samples, could have been tackled with recall of certain batches and corrective measures, they indicated.

Even as Nestle admitted to the regulator that the line on MSG could have been avoided on the noodle packets, it refused to regret the mistake in a public statement. it is learnt. That, perhaps, was the turning point in the Maggi saga.

To a question on whether it was asked by the regulator to issue a public statement on MSG labelling, a Nestle India spokesperson said: "As the matter is sub judice, we would refrain from giving a response at this stage and request your understanding."

Two months after FSSAI ordered a recall of Maggi noodles from store shelves across India, Business Standard pieces together the events - all quite dramatic - that might have led to the country's first mega regulatory clampdown.

In fact, what happened between June 4 and 5 this year in New Delhi - more than a year after MSG and excessive lead were detected in Maggi samples at Uttar Pradesh's Barabanki district in March 2014 - is intriguing.

On June 4, FSSAI Chief Executive Yudhvir Singh Malik, a 1983-batch Haryana-cadre IAS officer, had a busy day meeting food commissioners from across India, to discuss many things, including a crackdown on companies. The same afternoon, at the capital's FDA Bhavan (FSSAI headquarters), Malik had an important visitor - Nestle's global CEO Paul Bulcke, who had flown from Switzerland to stop the Maggi mess from growing bigger in a market that held promise.

At Rs 2,500 crore, Nestle India's revenue from Maggi noodles stands at 25 per cent of total. Bulcke was accompanied by Etienne Benet, then managing director of Nestle India.

Bulcke's visit was a secret closely kept until the company sent out invites to the media at midnight, saying the global CEO would make an announcement at noon the next day. From the time Nestle top boss' meeting with Malik ended in the evening of June 4, to the midnight, when press invites were sent out, the company is believed to have weighed the options available to it. Having declined the offer to publicly state its position on MSG labelling, it chose to voluntarily recall the product, knowing that FSSAI was in no mood to relent.

Why then did FSSAI order a pan-Indian recall of Maggi noodles on June 5, when Bulcke was already withdrawing it from the market, at a widely attended press conference? Sources indicate the food regulator, with full backing from the government, had decided to send out a signal to industry, especially multinational companies, that rules could not be played around with.

But by the morning of June 5, things had changed. So, even as Nestle was preparing its answers to the many questions that might be asked at Bulcke's presser, FSSAI, now aware of Nestle's mind, was ready to advance its order to stop manufacturing Maggi noodles in India, and recall the product from the

market.

The FSSAI order followed high-level meetings in the government. But when asked, Malik said: "I have not received any instructions from the government on the issue. The regulator has been allowed to work independently."

Now, with industry representatives suggesting the action against Maggi had been a case of overreach by the regulator, the government is playing cautious to ensure investor sentiment is not hurt. Food Processing Minister Harsimrat Kaur Badal recently said the Maggi crisis had resulted in an environment of fear for industry. Even Prime Minister Narendra Modi had told his Cabinet colleagues to "maintain decorum" in the Maggi case, consumer affairs minister Ram Vilas Paswan said last week.

A combination of things might have contributed to a change in thinking within the government. For one, some international regulators, including those in the UK and Singapore, gave a clean chit to Maggi noodles exported from India. That might have put a question mark on the credibility of FSSAI and its accredited labs that tested Maggi samples and showed contamination.

An FSSAI official said the UK regulator had been approached repeatedly to share its findings, but it did not reply. FSSAI sought the details of the report from Nestle as well, but a company spokesperson told this newspaper, "food regulators of the UK and Singapore had conducted their own tests on Maggi noodles from India, in view of the concerns being raised. These are independent authorities and Nestle is not privy to the testing details".

Also, Goa Food and Drug Administration, whose Maggi samples were considered "ineligible" because of wrong readings in its report, had sent the same samples for further analysis to Mysuru's premiere referral lab, Central Food Technology Research Institute (CFTRI). In its report, made public last week, CFTRI said Maggi noodles complied with FSSAI rules and standards.

In such a scenario, the regulator, now pushed to a corner, is trying to explain that the action by FSSAI was not a knee-jerk one, and that there is no reason to call it a case of over-reach. "Six states had already banned Maggi noodles before the FSSAI order... It is not based on an isolated sample," Malik reiterated last week. Pointing out that a provision for enforcement will always lead to

annoyance of some and happiness of others, Malik said he was more concerned about the health of children consuming the noodles than anything else.

And, in a sign of things to come, Nestle India has got a managing director, Suresh Narayanan, who was earlier with the Philippines operations, to replace Etienne Benet. Soon after, the government appointed Ashish Bahuguna, former agriculture secretary, as the FSSAI chairman, a post that had been vacant for several months.

It's a different matter, though, that the timing of the FSSAI order was perhaps prompted by the Nestle decision on voluntary recall. FSSAI officials had told reporters on the evening of June 4 that any action would be taken after receiving more sample test results from states, which were awaited. But by the morning of June 5, things had changed. So, even as Nestle was preparing its answers to the many questions that might be asked at Bulcke's presser, FSSAI, now aware of Nestle's mind, was ready to advance its order to stop manufacturing Maggi noodles in India, and recall the product from the market.

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HOW THE CONTROVERSY COOKED UP

2014

Mar 10: UP FDA officer collects Maggi noodles sample from a retail shop in Barabanki, UP

Mar 26: Govt-owned lab in Gorakhpur finds monosodium glutamate in Maggi. UP FDA serves notice on Nestle

2015

Apr 30: UP FDA sends "order of recall" for the sample batch

May 30: UP FDA files case against Nestle India

Jun 1-4: States like Gujarat, Uttarakhand, Tamil Nadu, Delhi, UP and J&K ban the noodles

Jun 5: Nestle withdraws the noodles from markets

Jun 9: Singapore declares Maggi noodles to be safe for consumption

Jun 11: Nestle moves Bombay HC. Initiates incineration of 30,000 tonnes of the noodles

Jun 18: UP, eight other states fail to find excess lead in Maggi

Jun 30: Bombay HC allows Nestle India to export the noodles

Jul 8: Food Processing Minister Harsimrat Kaur Badal blames FSSAI for inducing fear in the industry

Jul 25: Suresh Narayanan appointed new Nestle India managing director

Aug 8: Health Minister J P Nadda accuses Nestle of not being forthcoming on questions raised by FSSAI

Centre plans to adopt new sand mining policy for forest areas

Union Minister for Environment and Forests [Prakash Javadekar](#) said on Sunday the Centre plans to adopt a new policy to allow [sand mining](#) in [forest areas](#) to stop flood waters from flowing into forests.

Javadekar made the announcement while referring to recent deaths of 10 Asiatic lions and other wild animals due to floods in Amreli district in June. He said sand mining in rivers passing through protected forest land has been banned by the Supreme Court.

“Due to floods in Amreli recently, 10 lions and other wild animals died. According to the Supreme Court order, you cannot excavate silt gathered in rivers passing from the forest area. As a result, large amount of silt has gathered in such rivers across the country,” Javadekar said at a press conference.

“As a result, river beds have become shallow and flood waters eventually flow into nearby forests. If we don't remove this silt, forests will eventually vanish and flood will keep happening. Thus, there is a need to remove this silt. Therefore, we have prepared a ‘sustainable sand mining policy’ to allow sand mining in forest areas for this purpose. We will also inform the court about it to seek its permission.”

The minister also claimed that his ministry cleared at least 35 projects in Gujarat, which had not been given clearance.

“When the Congress was in power at the Centre, they stalled many projects in Gujarat. During the last 15 months, we cleared 35 such projects of the Gujarat government. Many of these projects were stuck in this ministry since 2007,” Javadekar said.

Some of these projects which received environmental clearances include the 800 MW extension at Vanakbori thermal power station, drilling of 103 wells in Vadodara by the ONGC, development of Dholera SIR and a limestone mining project in Rangpur village of Junagadh, Javadekar said.

National Insurance cover for seven crops in Chhattisgarh

The crops to be covered under the national agriculture insurance scheme include paddy, Makka, Soyabean, Groundnut, Arhar pulses, Udad and Moong

Chhattisgarh government had decided to implement the national agriculture insurance policy and cover seven crops for the current Kharif season.

According to state government spokesperson, the crops to be covered under the national agriculture insurance scheme include paddy, Makka, Soyabean, Groundnut, Arhar pulses, Udad and Moong. The state cabinet had approved the draft of the National Agriculture Insurance Policy in May this year. The spokesperson said the agriculture department after consultations with the union agriculture ministry had given final shape for the implementation of the insurance policy.

The agriculture department officials said that the policy would cover all the farmers no matter they had taken loans or not. The share-croppers would also be entitled for the crop insurance.

The state government had decided to take kharif crops in 4.82 million hectares of area to produce 8.63 million tonnes of foodgrain in the kharif marketing season 2015. The state that had been recording over 1300 millimeters of annual average rainfall had not received good rains in the current season. The officials said there was no immediate threat to the crops following short rainfall. Moreover, Chhattisgarh had been a paddy growing state and delay in rainfall would not have much impact, they added.

The state government had planned to take paddy crop in 3.64 million hectares area this year as compared to last year's 3.73 million hectares---a variation of about two per cent. As against 7.64 MT paddy produced during the kharif 2014, the department had set a target of producing 7.65 MT paddy this year.